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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/563,571	06/08/2006	Naveen Chandra Bisht	47677-0001-00-US (220114)	1031
55694 7590 10/23/2009 DRINKER BIDDLE & REATH (DC) 1500 K STREET, N.W. SUITE 1100 WASHINGTON, DC 20005-1209			EXAMINER FOX, DAVID T	
			ART UNIT 1638	PAPER NUMBER
			MAIL DATE 10/23/2009	DELIVERY MODE PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/563,571	Applicant(s) BISHT ET AL.	
	Examiner David T. Fox	Art Unit 1638	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 29 June 2009.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-31 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-7, 9, 11-24, 26, 31 and 38 is/are rejected.
- 7) ☒ Claim(s) 8, 10, 25 and 27 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 06 January 2006 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

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Applicant's Response

All objections and rejections not repeated below have been obviated by Applicant's amendments of 29 June 2009 and accompanying arguments.

The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

Obviousness

Claims 1-2, 5-6 and 11-15 remain rejected under 35 U.S.C. 103(a) as being unpatentable over **Flasinski (US 2006/0191038 effectively filed 18 July 2002)** in view of **Fabijanski et al (US 6,162,964)**, further in view of **Shah et al (PNAS 79: 1022-1026 issued 1982)**, as stated on pages 5-9 of the last Office action.

Claims 1-6 and 11-15 remain rejected under 35 U.S.C. 103(a) as being unpatentable over **Flasinski (US 2006/0191038 effectively filed 18 July 2002)** in view of **Fabijanski et al (US 6,162,964)**, further in view of **Jofuku et al (1989, The Plant Cell 1: 1079-1093)**, further in view of **Stevenson et al (1986, Nucleic Acids Research 14: 8307-8330)**, as stated on pages 10-11 of the last Office action.

Claims 1-7, 9, 11-24, 26, 28-30 and new claim 31 are rejected under 35 U.S.C. 103(a) as being unpatentable over **Flasinski (US 2006/0191038 effectively filed 18 July 2002)** in view of **Fabijanski et al (US 6,162,964)**, further in view of **Williams et al (US 5,750,867)** and **Williams et al (1998, SEQ ID NO: 17 of US 5,750,867)**, further in view of **Michiels et al (US 6,372,960, Applicant submitted)**, as stated on pages 12-16 of the last Office action.

Applicant's arguments filed 29 June 2009 regarding the above obviousness rejections have been fully considered but they are not persuasive. Applicant urges that the above rejections are improper, since Flasiński et al do not teach or suggest the use of male tissue-specific promoters or restorer coding sequences. Applicant further urges that neither Flasiński nor Fabijanski et al teach the advantages of utilizing two different male-specific promoters with overlapping temporal expression patterns to drive the expression of the two restorer genes.

The Examiner maintains that Flasiński does indeed suggest the use of coding sequences involved in hybrid seed production, as stated on page 7 of the last Office action, top paragraph. Furthermore, Flasiński cites US Patent 5,689,041 (see, e.g., page 10, paragraph [0178] of Flasiński), which paragraph was previously cited by the Examiner on page 7 of the last Office action, second paragraph. US 5,689,041 is drawn to plant transformation with barstar genes which encode restorer proteins, wherein the promoter driving barstar expression may be the same as the promoter driving the male sterility gene, both of which are also instantly claimed. In addition, Flasiński specifically suggests the use of male tissue-specific promoters on page 21 in paragraph [0224], previously cited by the Examiner on page 7 of the last Office action, second paragraph.

Furthermore, Fabijanski et al teach the advantages of utilizing a different male tissue-specific promoter for different transgenes, including the L4 or L10 or L19 *Brassica* promoters which do not share high sequence homology, as stated on page 7 of the last Office action, fourth paragraph. In addition, the L4, L10 and L19 *Brassica*

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promoters do indeed have different (i.e. "overlapping") temporal expression patterns as newly claimed, as taught by Fabijanski et al in column 14, lines 4-8.

Thus, one of ordinary skill in the art would have been motivated to utilize the method of reducing transgene silencing through the use of multiple coding sequences encoding the same protein, and multiple promoters with different degrees of sequence homology, as taught by Flasiński; and to modify that method by incorporating the sterility and fertility coding sequences and the various male tissue-specific *Brassica* L# promoters which have different degrees of sequence homology (and overlapping temporal expression patterns); as taught by Fabijanski et al and suggested by Flasiński.

The fact that applicant has recognized another advantage which would flow naturally from following the suggestion of the prior art cannot be the basis for patentability when the differences would otherwise be obvious. See *Ex parte Obiaya*, 227 USPQ 58, 60 (Bd. Pat. App. & Inter. 1985).

Conclusion

Claims 8 and 25 remain free of the prior art, for the reasons stated on page 17 of the last Office action. Claims 10 and 27 are now deemed free of the prior art, given the failure of the prior art to teach or reasonably suggest the use of the A9 promoter as the (second) promoter which expresses a modified restorer coding sequence, together with the wild type restorer coding sequence and a male sterility coding sequence both under the control of a first promoter; wherein such a combination has unexpectedly high levels of fertility restoration, as shown on page 23 of the specification, lines 1-11. Moreover, it is now considered that Jagannath et al teach away from the use of the A9 promoter on

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page 17, Table 1, where it is shown that the A9 promoter gave poorer results than the TA29 promoter (see, e.g., rows 9 and 10 of Table 1).

Claims 8, 10, 25 and 27 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

No claim is allowed.

Citation of Relevant Art

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. The Examiner has cited Rogers (US 5,378,619) and has cited and submitted Dey et al (1999, Plant Molecular Biology 40: 771-782); each of which demonstrate that the full-length virus names corresponding to the acronyms "FMV" and "MMV" were well-known in the art at the time of filing; as stated by Applicant on page 9 of the Response, penultimate paragraph.

THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of

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the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Contact Information

Any inquiry concerning this communication or earlier communications from the examiner should be directed to David T. Fox whose telephone number is (571) 272-0795. The examiner can normally be reached on Monday through Friday from 10:30AM to 7:00PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Anne Marie Grunberg, can be reached on 571-272-0975. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

/David T Fox/

Primary Examiner, Art Unit 1638

October 22, 2009